

V. *Observations on the State of Population in Manchester, and other adjacent Places.*
By Dr. Percival. Communicated by the
Rev. Dr. Price.

Redde, Nov. 25, 1773. FROM an account taken in 1717, the number of inhabitants in MANCHESTER, for I am uncertain whether SALFORD was included [a], appears to have been 8000.

By a survey, made in 1757, of Manchester and Salford, the number of inhabitants was found to be 19839. And from 1754 to 1761 inclusive, the number of deaths amounted to 5769. The annual deaths therefore, at the period of the survey, must have been 721, exclusive of dissenters. It is probable, as will appear afterwards, that these would have increased the number to 771. At this time therefore, 1 in 25 .7, of the inhabitants of Manchester, died every year.

[a] Manchester and Salford, though distinguished by different names, like London, Westminster, and the Borough of Southwark, may be considered as one and the same town, being divided only by a small river, over which two bridges are erected.

A new

A new survey of Manchester has been executed this summer, 1773, with great care and accuracy, of which the following is a particular account.

Manchester.			Salford.	
3402	-	Houfes	-	866
5317	-	Families	-	1099
10548	-	Males	-	2248
11933	-	Females	-	2517
7724	-	Married	-	1775
432	-	Widowers	-	89
1064	-	Widows	-	149
7782	-	Under 15	-	1793
3252	-	Above 50	-	640
342	-	Male Lodgers	-	18
150	-	Female Do.	-	13
44	-	Empty Houfes	-	26

From hence it appears, that the number of tenanted houfes, in Manchester and Salford, amounts to 4268; the families to 6416; and the inhabitants to 27,246. The proportion of persons to a house, therefore, is verynearly $6\frac{2}{3}$; and, of individuals to a family, about $4\frac{1}{2}$. The females exceed the males, by 1654; the widows are more than double the number of widowers; and about a seventh part of the inhabitants have attained the age of fifty.

The following table is formed from the register of burials and baptisms at the collegiate or parish church in Manchester, and gives the annual number of each, on an average.

		Burials.	Baptisms.
From 1580 to 1587 inclusive,	184		
1680	1687	286	
1720	1727	359	
1754	1760	736	769
1761	1765	731	843
1766	1770	870	970

But it should be remarked, that this account does not include the deaths, or births, amongst the Dissenters. These, by a late improvement in our bills of mortality, are now admitted into the parish register, and last year, 1772, the former amounted to 50, the latter to 181. Admitting these to be the average of unregistered baptisms and burials in Manchester, the annual medium of deaths, from 1768 to 1772 inclusive, will be 958. And the annual births, during the same period, with the like allowance, will be 1098. Hence the present proportion, of annual deaths to the inhabitants, is nearly as 1 to 28.4; and, of births to the inhabitants, almost as 1 to 25. The births also, it appears, exceed the burials 140 every year, at a medium.

The rapid growth of Manchester is sufficiently evident from the preceding facts. Yet LEVERPOOL, during the same space of time, has increased

in a much greater proportion. This appears from the following Table, which I have extracted from a very curious and entertaining work, lately published by my ingenious friend Mr. ENSFIELD, Lecturer on the Belles Lettres in the Academy at Warrington.

[b] Year.	Number of Inhabitants.	Annual Addition.
1700	- 5714	
1710	- 8168	- - 245
1720	- 10446	- - 227
1730	- 12074	- - 162
1740	- 18086	- - 601
1750	- 22099	- - 401
1760	- 25787	- - 368
1770	- 34004	- - 822

According to this Table, Liverpool has, at present, upwards of six times the number of inhabitants, which it contained, at the beginning of this century.

But the progress of trade and opulence, in Manchester, has been more than adequate to its advancement in population. For a considerable part, of the manufactory of this flourishing town, is carried on in the adjacent country, which is thereby crowded with houses and inhabitants. So populous are the environs of Manchester, that every house in the township has been found, by a late survey, to contain, at an average, six persons. The township is indeed but of small extent; and the greatest

part of it will probably, in a short time, be included in Manchester. It contains 311 houses; 361 families; 947 males; 958 females; 656 married persons; 21 widowers; 42 widows; 763 under 15 years of age; and 222 above 50.

It is pleasing to observe, that, notwithstanding the enlargement of Manchester, there has been a sensible improvement, in the healthiness and longevity of its inhabitants; for the proportion of deaths is now considerably less, than in 1757. But this is chiefly to be ascribed, as Dr. PRICE has justly observed [c], to the large accession of new settlers from the country. For as these usually come in the prime of life, they must raise the proportion of inhabitants to the deaths, and also of births and weddings to the burials, higher than they would otherwise be. However, exclusive of this consideration, there is good reason to believe, that Manchester is more healthy now than formerly. The new streets are wide and spacious, the poor have larger and more commodious dwellings, and the increase of trade affords them better cloathing and diet, than they before enjoyed. I may add too, that the late improvements in medicine have been highly favourable to the preservation of life. The cool regimen in fevers, and in the small pox, the free admission of air, attention to cleanliness, and the general use of antiseptic remedies and diet, have certainly mitigated the violence, and lessened the mortality of some of the most dangerous and malignant distempers, to which mankind are inci-

[c] See a most valuable Treatise on Reversionary Payments, p. 188, third edition.

dent. The ulcerous fore throat, which prevailed here in the year 1770, is the only epidemic, which has appeared in Manchester, with any fatal degree of violence, for many years. Miliary fevers, which were formerly frequent in this town and neighbourhood, now rarely occur; and, if I may judge from my own experience, the natural small pox, for inoculation is not much practised here, carries off a much smaller proportion, of those who are attacked by it, than is commonly supposed. Puerperal diseases also decrease every year amongst us, by the judicious method of treating women in child-bed: and, as nature is now more consulted in the management of infants, it is reasonable to suppose, that this must be favourable to their health and preservation.

But it must be acknowledged, that large towns are injurious to population; and the advantages I have enumerated, which, in hamlets or country villages, would have operated, with full force, to the benefit of mankind, have only served to check the destructive tendency of the accumulation of inhabitants in Manchester. In the Pais de Vaud, a district of the province of Bern in Switzerland, and in a country parish in Brandenburg, 1 in 45 of the inhabitants dies annually; and at Stoke Damarell in Devonshire, 1 in 54 [*d*]; whereas, in this town, the yearly mortality appears to be 1 in 28; in Liverpool 1 in 27; and in London 1 in 21. Half the children, who are born in Manchester, die under five years old; and the proportion,

[*d*] See the Treatise, before referred to, on Reversionary Payments, by my learned friend Dr. Price.

which the births bear to the number of inhabitants who attain the age of 80, is as 30 to 1. Diseases are most frequent and fatal here, in the months of January, February, and March: and least so, in July, August, and September. The mortality, of these two seasons, is as 11 to 8; and, of the first six months of the year compared with the last six months, as 7 to 6.

In April, 1773, several Gentlemen, from motives of curiosity, undertook an enumeration of the people of BOLTON, a manufacturing town about twelve miles distant from Manchester. The houses were found to be 946; the males 2159; the females 2392; and persons aged seventy years and upwards 74. To these numbers 17 must be added, which, by a mistake, were not classed under either denomination. The inhabitants of Bolton therefore amount to 4568; the number of individuals to a house is 4.8; and about a sixtieth part of the people have attained the age of seventy.

LITTLE BOLTON, a suburb of Bolton, including the manor, and extending into the country as far as the inhabitants are subject to suit and service, contains 232 houses; 771 individuals; 361 males; 410 females; and 15 persons aged seventy years and upwards. From this account it appears that the inhabitants are 3.3 to a house; and that 1 in 51 has reached the age of seventy. The difference, in these proportions, between a small town, and a country manor contiguous to it, is worthy of observation.

M^r. FLETCHER has favoured me with an enumeration of the people of BURY, which he has just executed

executed with great care. The town contains 463 houses; 464 families; and 2090 inhabitants. Each house and family therefore consists of $4\frac{1}{2}$ individuals. Bury is situated nine miles from Manchester, and is enriched by a branch of the woollen manufactory.

At ALTRINGHAM, a market town in Cheshire, which has no manufactory, the number of houses, according to an exact survey, made in July 1772, was 248; of inhabitants 1029; or $4\frac{1}{2}$ to a house. An enumeration, of the people of this town, was made about twenty years ago, at which time they amounted very nearly to 1000.

The following is a comparative view of the state of population, the duration of life, and the mortality of the several seasons of the year, &c. in EASTHAM and ROYTON, two country places widely different from each other, in climate, situation, and in the occupation of their inhabitants.

The parish of EASTHAM lies in Wirral, one of the hundreds into which Cheshire is divided, and is extended along the banks of the river Mersey, a few miles distant from the Irish sea. The people are most of them farmers; though some are fishermen, and others are employed in the ferry to Liverpool.

ROYTON is a chapelry, situated ten miles eastward of Manchester, under the great chain of mountains, which divides Lancashire and Yorkshire. The inhabitants are employed chiefly in the cotton and linen manufactory; a few of them are farmers; and some, I believe, work in the coal pits, with which this country abounds.

I am

I am indebted to my learned friend the Rev. Mr. TRAVIS, Vicar of Eaftham, for the survey of his own parish, which he undertook at my desire, and executed himself; and also for that of Royton, which was made by his uncle, the worthy and respectable clergyman of that chapelry.

January 1st, 1772; the number of inhabitants, in the chapelry of Royton, were found to be 1105.

The number of inhabitants in the parish of Eaftham, 912.

The number of persons in a <i>house</i> , in the chapelry of Royton, is somewhat more than	—	—	—	5 $\frac{1}{2}$
The number of ditto, in the parish of Eaftham	—	—	exactly	—
The number of persons in a <i>family</i> , in the former on an average	—	—	about	—
The number of ditto, in the latter	—	—	more than	—
The proportion of males to females, in Royton	—	—	nearly as	— 53 to 56
The proportion of ditto, in Eaftham	—	—	nearly as	— 54 $\frac{1}{2}$ to 56
The widows to the widowers, in Royton	—	—	—	— as 10 to 3
The widows ditto, in Eaftham	—	—	—	— as 10 to 8 $\frac{1}{2}$
The number of births in Royton (on an average of 3 years) 42	} Proportion between males and females as 13 to 11			
The number of do. in Eaftham — Do. —	} Proportion between ditto, — as 13 to 11 $\frac{1}{2}$			

N. B. These proportions for 7 years.

The number of births in Royton to the number of married inhabitants, as (very nearly) 1 child to 5 married couples.				
The number of do. in Eaftham to ditto, — as (somewhat more than) 1 child to 4 married couples.				
The number of births in Royton to the whole number of inhabitants, —	—	—	as	1 to 26 $\frac{1}{3}$
The number of do. in Eaftham to ditto, —	—	—	as	1 to 26 $\frac{1}{3}$
The number of married persons in Royton to the number of unmarried persons above 15, —	—	—	as	8 to 5
The number of ditto, in Eaftham to the number of ditto, —	—	—	ditto, nearly as	6 to 5
The number of burials in Royton (on an average of 3 years) 21	} Proportion between males and females as 13 to 10			
The number of ditto in Eaftham ditto —	} Proportion between ditto as 13 to 11 $\frac{1}{2}$			
The number of burials in Royton to the number of all the inhabitants, —	—	—	as	1 to 52
The number of ditto in Eaftham to —	—	—	as	1 to 35
The number of children dying under 3 yrs old to the number of childr. born in Royton (on an average of 3 yrs) as 1 to 7	—	—	—	—
The number of children ditto, to ditto — in Eaftham	—	—	—	— as 1 to 17

Persons

Persons alive in Roydon under 3 years old Jan. 1. 1772,	129;	dead under 3 years old, average of 3 years, 6; or 1 of 21½
Ditto in Eastham	—	—
Persons alive in Royton under 15 years old Jan. 1. 1772,	450;	dead under 15 years old, average of 3 years, 11; or 1 of 50
Ditto in Eastham	—	—
Persons alive in Royton between 15 and 30 years old Jan. 1. 1772,	329;	dead before 1773 of these 4; or 1 of 82
Ditto in Eastham	—	—
Persons alive in Royton from 30 to 40 years old ditto,	96;	dead before 1773 of these 5; or 1 of 66½
Ditto in Eastham	—	—
Persons alive in Royton from 40 to 50 years old ditto,	124;	dead before 1773 of these on an average, 2; or 1 of 48
Ditto in Eastham	—	—
Persons alive in Royton from 50 to 60 years old ditto,	83;	dead before 1773 of these on an average, 2; or 1 of 49
Ditto in Eastham	—	—
Persons alive in Royton from 60 to 70 years old ditto,	64;	dead before 1773 of these — 1½; or 1 of 45
Ditto in Eastham	—	—
Persons alive in Royton from 70 to 80 years old ditto,	49;	dead before 1773 of these — 2; or 1 of 32
Ditto in Eastham	—	—
Persons alive in Royton from 80 to 90 years old ditto,	54;	dead before 1773 of these — 1½; or 1 of 36
Ditto in Eastham	—	—
Persons alive in Royton from 90 to 100 years old ditto,	10;	dead before 1773 of these — 1½; or 1 of 40
Ditto in Eastham	—	—
Persons alive in Eastham from 70 to 80, Jan. 1. 1772,	8	above 70 years, 18 { dead before 1773, on an } 1 of 18
Ditto, 80 to 90,	—	average of 3 years, {
Ditto, 90 to 100,	—	dead before 1773, on an } 1 of 21
Ditto, above 100,	—	average of 3 years, { [e]

The mortality of the seasons at Royton and Eastham, for the last seven years, has been as follows:

January,	February,	March,	Royton.	Eatham.
April,	May,	June,	39	56
July,	August,	September,	31	34
October,	November,	December,	31	45
			18	53
			<hr/>	<hr/>
			119	188

[2] The averages, here adopted, may, in some instances, seem to be too small; but Mr. Travis assures me, that, through a series of fifteen successive years, the Marriages, Births, and Deaths, at Eastham, do not vary, in any degree worth remarking, from the foregoing Table.

Of all the months in the year, singly taken, October is the most, and April the least fatal to the inhabitants of Eastham. Whereas the three last months of the year appear to be the most healthful at Royton; although a very large quantity of rain usually falls there, during this season. For the wind, at this time, being generally westerly, the clouds are intercepted by the high mountains, and discharge themselves in frequent and heavy showers. At TOWNLEY, which is situated under the same chain of hills, and is not very far distant from Royton, 42 inches of rain fall, at a medium, every year. The quantity of rain, at Manchester, which is farther removed from the mountains, is about 33 inches *communibus annis*. It has been observed, by a very useful writer, that the moist seasons, in Great Britain, and Ireland are more remarkably free, from epidemic diseases, than the dry ones; and that storms, the usual concomitants of rain, are attended with more health and less sickness, than calm weather; probably because they dissipate the vapours, which, by stagnation, might prove an occasion of various distempers [f]. I shall not presume to determine, that these observations account for the superior healthiness of the last months of the year at Royton; but they certainly should remove the prejudice, which is too generally entertained, against the wetness of the climate in Lancashire, and other western counties of England. For the bounties of Providence are dispensed, with an equal as well as with

a liberal hand. And if we, in this part of the island, enjoy less sunshine, than our neighbours, we have milder winters, and summers tempered with more refreshing showers, to balance the inconvenience.

The Rev. Mr. BOLTON, a very worthy dissenting clergyman at MONTON, a few miles from Manchester, has, at my request, made an enumeration of his people, with a retrospective view of the births and deaths amongst them during the last ten years. By this survey, his congregation, including servants, consists of 196 males; 190 females; 97 families; 60 married persons; 14 widowers; 13 widows; 142 under 15 years of age; and 64 above 50. The deaths, during ten years, have been 57, and the births 138. Hence it appears, that, of this society, 1 in 6 has attained the age of 50; that the births are more than double the burials; and that only 1 in 68, at a medium, dies every year. The last circumstance is somewhat extraordinary; but to remove all doubts, concerning the accuracy of his enumeration, Mr. BOLTON, with the most obliging assiduity, has repeated it twice. And he has derived his information, not only from the register of his chapel, but also from the private records, or deliberate recollection, of every family in his congregation. The situation of Monton appears to rather unfavourable to health, from the vicinity of a large moss; but the people are most of them farmers, and are remarkable for their diligence and sobriety. The long life, which they enjoy, affords a striking and pleasing proof of the great

advantages of temperance ; and confirms a curious observation of M. MURET, who examined the register of mortality in one town, to mark those, whose deaths might be imputed to excess. The number of these he found so great, as led him to believe, that drunkenness is more destructive to mankind, than pleurifies, fevers, or the most malignant distempers.

King's Street,
Aug. 16th, 1773.